INDEX

MATHEMATICAL NOTES

Volumes 1-2, 1967



MATHEMATICAL NOTES Volumes 1-2, 1967

(A translation of Matematicheskie Zametki)

A

Agranovich, M. S. - 862 Alekseev, V. E. - 571 Anosov, D. V. - 818 Arestov, V. V. - 100

B

Berezanskii, I. A. - 606 Berezin, F. A. - 180 Besov, O. V. - 156 Blinov, I. N. - 729 Blyusin, A. A. - 17 Bochkarev, S. V. - 261 Bol'shev, L. N. - 65 Boltyanskii, V. G. - 466 Bovdi, A. A. - 561 Bronshtein, I. U. - 315 Brychkov, Yu. A. - 534 Bryuno, A. D. - 216

C

Chanturiya, Z. A. - 277, 597 Charin, V. S. - 491 Chernykh, N. I. - 803 Chibisov, D. M. - 150 Chistyakov, V. P. - 6

D

Delone, B. N. - 171 Dolzhenko, E. P. - 208 Drozd, Yu. A. - 564

E

Efimov, A. V. - 266 Elizarov, V. P. - 623, 906 Epifanov, G. V. - 540

F.

Faddeev, D. K. - 415 Fainleib, A. S. - 428 Fedosov, B. V. - 670 Fel'dman, N. I. - 634 Finozhenok, G. N. - 381 Flomin, A. M. - 809 Frangulov, S. A. - 480 Freidkin, S. A. - 719

G

Gabushin, V. N. - 194 Gaposhkin, V. F. - 433 Garkavi, A. L. - 199, 809 Gasymov, M. G. - 813 Gel'fond, A.O. - 213, 337 Glagolev, V. V. - 892 Glushko, V. P. - 367 Godunova, E. K. - 326, 618 Gol'dberg, A. A. - 48 Golubov, B. I. - 203 Gopengauz, I. E. - 110 Gorbachuk, E. L. - 901 Gorin, E. A. - 117, 851 Goyan, I. M. - 683 Grinberg, S. I. - 300 Gromova, P. S. - 472

I

Il'in, A. M. - 43 Ivchenko, G. I. - 363

K

Kaluzhnin, L. A. - 768 Karatsuba, A. A. - 57, 133 Kats, V. G. - 231 Kaz'min, Yu. A. - 453 Khalfina, N. M. - 875 Khelemskii, A. Ya. - 484 Khloponin, S. S. - 236 Khoteev, V. A. - 491 Kim, G. D. - 150 Kirichenko, V. V. - 567 Kolesnik, G. A. - 553 Komlenko, Yu. V. - 666 Korneichuk, N. P. - 839 Kostrikin, A. I. - 773 Kostyuchenko, A. G. - 242 Kramer, G. L. - 374 Krasnosel'skii, M. A. - 306, 856 Kruzhkov, S. N. - 824 Kupstov, N. P. - 311 Kushner, B. A. - 577

Kuznetsov, N. N. - 733

L

Larionov, E. A. - 390 Lavrik, A. F. - 779 Leont'ev, A. F. - 457 Leont'eva, T. A. - 695 Levin, A. Yu. - 438 Levin, V. I. - 618 Levitan, B. M. - 23, 393, 813 Lidskii, V. B. - 670 Lin, V. Ya. - 851 Lur'e, B. B. - 627 Lyakhovitskii, V. N. - 420

M

Machis, Yu. Yu. - 740
Maler, K. - 504
Maloshevskii, S. G. - 870
Malozemov, V. N. - 355, 703
Markov, A. A. - 51
Mateev, V. A. - 646
Maz'ya, V. G. - 610
Medvedev, Yu. I. - 363
Millionshchikov, V. M. - 675
Mishchenko, A. S. - 226
Muchnik, B. A. - 341
Murskii, V. L. - 145
Mutylin, A. F. - 496

N

Nechiporuk, E. I. - 499 Nikishin, E. M. - 85 Nikolaev, E. G. - 529 Novodvorskii, M. E. - 321 Nudel'man, A. A. - 290

0

Olevskii, A. M. - 330 Osipov, R. I. - 784

p

Paneyakh, B. P. - 844 Pigolkina, T. A. - 518 Pogorelov, A. V. - 3 Polosuev, A. M. - 29 Polyakov, V. N. - 859 Ponomarev, S. P. - 257 Potapov, M. K. - 706 Poznyak, E. G. - 162

R

Ramm, A. G. - 393 Rao, V. - 436 Rubinstein, A. I. - 653 Rublev, V. S. - 677 Rudakov, A. N. - 760 Ryabukhin, Yu. M. - 631 Ryshkov, S. S. - 171

S

Sabitov, I. Kh. - 546, 881
Sadovnichii, V. A. - 121
Samandarov, A. G. - 896
Sendov, B. - 523
Sevast'yanov, B. A. - 33, 220, 363
Shafarevich, I. R. - 760
Shidlovskii, A. B. - 508
Shimanov, S. N. - 831

Shirokov, Yu. M. - 534
Shneperman, L. B. - 351
Shor, L. A. - 140
Shreider, Yu. A. - 723
Shtogrin, M. I. - 171
Shubin, M. A. - 463
Shuml'yan, Yu. L. - 400
Sinai, Ya. G. - 715
Skornyakov, L. A. - 176
Stechkin, S. B. - 91, 283, 442
Stetsenko, V. Ya. - 306
Storozhenko, É. A. - 588
Subbotin, Yu. N. - 39, 792
Sukhorutchenko, V. V. - 864

T

Taikov, L. V. - 104, 358 Talalyan, A. A. - 784 Telyakovskii, S. A. - 53, 404 Terekhin, A. P. - 659, 798 Tsoi, K. M. - 831 Tugov, I. I. - 888 Turchin, V. M. - 564

U

Ul'yanov, P. L. - 12, 270

V

Verner, A. L. - 480
Viktorova, I. I. - 220
Vinberg, É. B. - 231
Vinogradov, A. I. - 77, 127
Vinokurov, V. A. - 185
Vishnyakov, M. V. - 438
Vladimirov, V. S. - 448, 583
Vlasenko, V. F. - 641
Vlasov, L. P. - 295, 600
Volkov, E. A. - 747
Volkov, I. I_{I:-} 189

MATHEMATICAL NOTES Volumes 1-2, 1967

(A translation of Matematicheskie Zametki)

CONTENTS

Volume 1, Numbers 1 and 2 January-February, 1967 Engl./Russ. VOLUME 1, NUMBER 1 3 3 Discrete Limit Distributions in the Problem of Balls Falling in Cells with Arbitrary 6 9 Certain Properties of Series in Haar Systems - P. L. Ul'yanov...... 12 17 25 Theorem on the Argument of an Almost Periodic Function-B. M. Levitan 23 35 Some Arithmetic Properties of a Recurrent Function with Variable Coefficients 29 45 On the Regularity of Branching Processes-B. A. Sevast'yanov 34 53 63 41 On Parabolic Equations Whose Coefficients Do Not Satisfy the Dini Condition 46 71 Defect Nonasymptotic Values of Infinite-Order Integral Functions-A. A. Gol'dberg . . . 81 Example of an Independent System of Words Which Cannot Be Included in a Finite Complete System-Al. A. Markov 87 56 On the Question of the Convergence of Fourier Series in the Metric L -S. A. Telyakovskii 59 91 DOCTORAL DISSERTATIONS The Method of Trigonometric Sums and Theorems of the Mean-A. A. Karatsuba. 64 99 72 111 REVIEW G. Babev. Distribution of Integers over Algebraic Surfaces-Reviewed by 77 119 VOLUME 1, NUMBER 2 The Convergence of Rearrangements of Series of Functions - E. M. Nikishin. 85 129 91 137 100 149 On the Best Approximation in the Mean of Certain Classes of Analytic Functions 104 155 A Theorem of A. F. Timan on the Approximation of Functions by Polynomials on a 110 163 Maximal Subalgebras of Commutative Banach Algebras with Involution - E. A. Gorin . . . 117 173 Trace Formulas for Higher Order Ordinary Differential Operators - V. A. Sadovnichi . . 121 179 The General Hardy-Littlewood Equation (Dedicated to A. O. Gel'fond on His Sixtieth Birthday)-A. I. Vinogradov 127 189 199

209

140

	Engl.	/Russ.
Isomorphic Embeddability of Semigroups with Countable Sets of Defining Relations		
in Finitely Defined Semigroups - V. L. Murskii	145	217
Computer—G. D. Kim and D. M. Chibisov	150	225
DOCTORAL DISSERTATIONS Concerning the Theory of Embedding and Continuing Classes of Differentiable		
Functions -O. V. Besov	156 162	235
INFORMATION	-	
Fifth International Congress on Cybernetics	166 167	251 252
Volume 1, Numbers 3 and 4 March-April, 1967		
VOLUME 1, NUMBER 3		
A Theorem Due to Sandakova Concerning Positive Quadratic Forms-B. N. Delone,		
S. S. Ryshkov, and M. I. Shtogrin	171	253
Elizarov Ring of Quotients and the Principle of Localization—L. A. Skornyakov	176	263
Automorphisms of a Grassman Algebra-F. A. Berezin	180	269
Limit of Some Functions at Infinity-V. A. Vinokurov	185	277
Compatibility of Two Summation Methods—I. I. Volkov	189	283
- V. N. Gabushin	194	291
The Unit Sphere of the Space of Polynomials with Integral Metric-A. L. Garkavi	199	299
Continuous Functions of Bounded p-Variation-B. I. Golubov	203	305
A Comparison of Rates of Rational and Polynomial Approximation—E. P. Dolzhenko	208	313
A Uniqueness Theorem—A. O. Gel'fond	213	321
Formal Stability of Hamiltonian Systems—A. D. Bryuno Limit Behavior of the Maximum in a Polynomial Representation—I. I. Viktorova	216	325
and B. A. Sevast'yanov	220	331
Spectral Sequences of Adams Type-A. S. Mishchenko	226	329
Quasi-Homogeneous Cones-É. B. Vinberg and V. G. Kats	231	347
The Convergence of Continued Fractions - S. S. Khloponin	236	355
Some Spectral Properties of Differential Operators—A. G. Kostyuchenko INFORMATION	242	365
General Yearly Meeting of the Mathematics Division of the Academy		
of Sciences of the USSR	251	379
[The Third International Congress on Logic, Methodology, and Philosophy of Science		383]
All-Union Conference on Machine Translation	254	384
VOLUME 1, NUMBER 4		
Symetrically Continuous Functions—S. P. Ponomarev	257	385
Unconditional Bases—S. V. Bochkarev	261	391
Generalization of a Theorem of Kaczmarz-A. V. Efimov	266	399
Imbedding of Certain Classes of Functions - P. L. Ul'yanov	270	405
Polynomial Basis-Z. A. Chanturiya	277	415
Location of the Zeros of Polynomials—S. B. Stechkin	283 290	425 435
Canonical solutions to a Moment Problem on Several Intervals A. A. Nidel'man	290	430

	Engl	./Russ
Approximately Convex Sets in Uniformly Smooth Spaces-L. P. Vlasov	295	443
Trace Formula for the Schroedinger Equation in a Finite Domain-S. I. Grinberg Bounds for the Spectral Radius of Positive Operators-P. P. Zabreiko,	300	451
M. A. Krasnosel'skii, and V. Ya. Stetsenko	306	461
- N. P. Kupstov	311	469
Example of a Dynamic System in Which all Motions are Asymptotic-I. U. Bronshtein	315	475
Zero-Dimensional Open Mappings of Regions-Yu. A. Zykov	317	479
Certain Homotopical Invariants of Spaces of Maximal Ideals - M. E. Novodvorskii	321	487
Convexity of Complex Functions and its Use in Proving Inequalities - E. K. Godunova	326	495
DOCTORAL DISSERTATION	220	E01
Fourier Series in Orthogonal Systems-A. M. Olevskii	330	501
INFORMATION Third Conference on Transmission Theory and Information Coding	334	508
Three connectence on Transmission Theory and micrimation coding (TVTVTVTVTVTVTVT		
Volume 1, Numbers 5-6 May-June, 1967		
VOLUME 1, NUMBER 5		
Functions Which Take on Integral Values - A. O. Gel'fond	337	509
by Formulas - B. A. Muchnik	341	515
Abstract Characteristics of Bisemigroups of Binary Operations -K. A. Zaretskii	347	525
Duality Theorem for Commutative Compact Topological Semigroups - L. B. Shneperman	351	531
Polygonal Interpolation - V. N. Malozemov	355 358	537 541
Yu. I. Medvedev, and B. A. Sevast'yanov	363	549
Estimates of the Solutions of a Second-Order Elliptic-Parabolic Equation - V. P. Glushko	367	555
Equivalence of Differential and Perturbed Differential Operators in Spaces of Analytic		000
Functions of Several Variables in Polycircular Domains -G. L. Kramer	374	565
Nature of the Spectrum of the First Boundary Value Problem for Higher Order Equations		
in Infinite Domains - G. N. Finozhenok	381	575
Conditions for Discreteness of the Spectrum of the Sturm-Liouville Operator in the Space		
of Vector Functions—L. B. Zelenko	386	583
-E. A. Larionov	390	589
-B. M. Levitan and A. G. Ramm	393	595
Two-Sided Division in a Ring of Operators-Yu. L. Shmul'yan	400	605
DOCTORAL DISSERTATIONS Estimates of Sums of Trigonometric Series and Polynomials Useful in Connection with		
Problems in the Theory of Approximation of Functions.—S. A. Telyakovskii	404	611
INFORMATION [Second Symposium on Geometry "As a Whole		624]
VOLUME 1, NUMBER 6		
Class Numbers of Exact Ideals for Z-Rings-D. K. Faddeev	415	625
On a Relationship for Bernoulli Numbers-V, N. Lyakhovitskii	420	633

	Engl.	Russ.
Distribution of Values of Euler's Function-A. S. Fainleib	428	645
Note on a Paper of P. Révész on Multiplicative Systems of Functions -V. F. Gaposhkin .	433	653
Relation between the Area of a Set and the Length of its Boundary-V. Rao Bounds for a Determinant Whose Elements Lie in a Given Circle-M. V. Vishnyakov	436	657
and A. Yu. Levin	438	659
Inequalities between the Upper Bounds of the Derivatives of an Arbitrary Function	440	005
on the Half-Line-S. B. Stechkin	442 448	665 675
Expansions in Series of Powers of (z-cq ⁿ)-Yu. A. Kaz'min	453	683
Representations of Arbitrary Functions by Certain General Types of Series		
-A. F. Leont'ev.	457	689
Operators of "Common Position" in Hilbert Spaces - M. A. Shubin	463	699
Nonoscillatory Second-Order Optimal Systems-V. G. Boltyanskii	466	703
Critical Case-P. S. Gromova	472	715
-A. L. Verner and S. A. Frangulov	480	727
F-Space-A. Ya. Khelemskii	484	735
INFORMATION [Interuniversity Summer School on the Theory of Summation of Numerical and Functional		
Series		741]
Volume 2, Numbers 1 and 2 July-August, 1967		
MOLUME O MUMBER 1		
VOLUME 2, NUMBER 1		
Groups with the Minimality Condition for the Subgroups - V. A. Khoteev and	404	
V. S. Charin	491	3
Correcting Closures in Contact Circuits – É. I. Nechiporuk	496 499	11 15
	504	25
Concerning a Lemma of A. B. Shidlovskii – K. Maler	508	33
Density of Smooth Finitary Functions in $W_{\mathbf{p}}^{\mathbf{r}}(\Omega)$ -G. G. Kazaryan		45
	514	
Density of Finite Functions in Weight Classes - T. S. Pigolkina	518	53
Step-Function Approximations Relative to the Hausdorff Distance - Bl. Sendov	523	61
Zeros of Polynomials with Bounded Logarithmic Derivatives – E. G. Nikolaev Some Limit Formulas for Generalized Functions – Yu. A. Brychkov	529	71
and Yu. M. Shirokov	534	81
Analysis" by A. N. Kolmogorov and S. V. Fomin - N. N. Zhigulin	539	91
Universality of the Sections of Cubes - G. V. Epifanov	540	93
Mixed Volumes and the Probability of Hitting in Convex Domains for a		
Multidimensional Normal Distribution - V. A. Zalgaller	542	97
One Condition for Rigidity of Composite Surfaces - I. Kh. Sabitov	546	105
INFORMATION		
[Sixth Symposium on Mathematical Programming (Princeton, New Jersey, August, 1967)		115
		110
VOLUME 2, NUMBER 2		
Distribution of Primes in Sequences of the Form $[n^C]$ – G. A. Kolesnik	553	117

Intersection of Powers of the Fundamental Ideal of an Integral Group Ring		
- A. A. Bovdi	561	129
- Yu. A. Drozd and V. M. Turchin	564	133
Orders, All of Whose Representations are Completely Resolvable - V. V. Kirichenko	567	139
Skolem Method of Constructing Cyclic Steiner Triple Systems - V. E. Alekseev	571	145
Primitive Constructive Functions – B. A. Kushner	577	157
- V. S. Vladimirov	583	167
Orthogonal Expansions - É.A. Storozhenko	588	175
A Generalization of G. Faber's Theorem on Polynomial Bases - Z. A. Chanturiya	597	187
Chebyshev Sets and Approximately Convex Sets - L. P. Vlasov	600	191
Completions of Locally Convex Lattices - I. A. Berezanskii	606	201
Elliptic Equation in Divergent Form - V. G. Maz'ya	610	209
An Inequality of Maroni - E. K. Godunov and V. I. Levin	618	221
Volume 2, Numbers 3 and 4 September-October, 1967		
VOLUME 9 NUMBER 9		
VOLUME 2, NUMBER 3	0.00.	005
Two Properties of Associative Rings — V. P. Elizarov	623	225 233
Lower Radical Rings — Yu. M. Ryabukhin	627 631	239
Estimation of the Absolute Value of a Linear Form from Logarithms of Certain Algebraic	031	200
Numbers - N. I. Fel'dman	634	245
A Theorem on the Summing of Diluted Series — V. F. Vlasenko	641	257
On Schauder System Series — V. A. Mateev	646	267
Series with Monotone Coefficients in the Walsh System — A. I. Rubinstein Integral Smoothness Properties of Periodic Functions of Bounded p-Variation	653	279
— A. P. Terekhin	659	289
Argument — Yu. V. Komlenko	666	301
Coefficients — V. B. Lidskii and B. V. Fedosov	670	307
- V. M. Millionshchikov	675	315
A Characteristic Property of a Class of Convex Sets — V. S. Rublev	677	319
VOLUME 2, NUMBER 4		
Diprimality and the Generalized Artin-Rees Property — I. M. Goyan	683	325
Stably Nilpotent Groups — D. I. Zaitsev	690	337
Representation of Analytic Functions by Series of Rational Functions - T. A. Leont'eva	695	347
Accuracy of a Rectangle Quadrature Formula for Periodic Functions — V. N. Malozemov.	703	357
Interconnection Between Certain Classes of Functions — M. K. Potapov	706	361
A Lemma from Measure Theory — Ya. G. Sinai	715	373
Spectrum of a Singular Operator — S. A. Freidkin	719	379
Banach Functionals and Ergodic Theorems — Yu. A. Shreider	723	385
Reducibility of One Class of Systems with Almost-Periodic Coefficients — I. N. Blinov Weak Solution of the Cauchy Problem for a Multi-dimensional Quasi-linear Equation	729	395
- N. N. Kuznetsov	733	401
Convergence to a Poisson Law — Yu. Yu. Machis	740	411

Engl./Russ.

DOCTORAL DISSERTATION The Development of a Grid Method for the Solution of Laplace's Equation in Finite or Infinite Regions with Piecewise-Smooth Boundaries — E. A. Volkov	747	421
Volume 2, Numbers 5 and 6 November-December, 1967		
VOLUME 2, NUMBER 5		
Historical Note	759	437
Finite Characteristic-A. N. Rudakov and I. R. Shafarevich	760	439
Structure of n-Abelian Groups-L. A. Kaluzhnin	768	455
Theorem on Semisimple Lie p-Algebras-A. I. Kostrikin	773	465
Quadratic Field-A. F. Lavrik	779	475
Divergence of Orthogonal Series to + ∞-R. I. Osipov and A. A. Talalyan	784	483
Best Approximation of a Class of Functions by Another Class-Yu. N. Subbotin The Lebesgue Constant for the Space of Functions of Bounded p-Variation	792	495
-A. P. Terekhin	798	505
-N. I. Chernykh	803	513
and A. M. Flomin	809	523
Discrete and Finite-M. G. Gasymov, V. V. Zhikov, and B. M. Levitan	813	531
Tangent Fields of Transversal Foliations in "U-Systems"-D. V. Anosov Estimates for the Highest Derivatives of Solutions of Elliptic and Parabolic Equations with	818	539
Continuous Coefficients-S. N. Kruzhkov	824	549
and S. N. Shimanov	831	561
VOLUME 2, NUMBER 6		
Exact Bounds for Norms of Differentiable Periodic Functions in L Metric		
-N. P. Korneichuk	839	569
Theorems about Traces and the Extension of Distributions—B. P. Paneyakh On a Condition on the Radical of a Banach Algebra Ensuring Strong Decomposability	844	577
-E. A. Gorin and V. Ya. Lin.	851	589
Interpolation Theorem for Linear Operators - P. P. Zabreiko	853	593
-M. A. Krasnosel'skii	856	599
A Class of Formally Normal Operators – V. N. Polyakov	859	605
-M. S. Agranovich and V. V. Sukhorutchenko	864	615
-S. G. Maloshevskii	870	627
Minimax Character of the Complex Analog of the T ² -Test-N. M. Khalfina	875	635
Minimal Surface as a Diagram of Sphere Rotations-I. Kh. Sabitov	881	645
Class of Equivalent Equations - I. I. Tugov	888	657
Length of Prime Disjunctive Normal Forms-V. V. Glagolev	892	665
On the Large Sieve in Algebraic Number Fields-A. G. Samandarov	896	673
-E. L. Gorbachuk.	901	681
Subcommutative Q-Rings-V. P. Elizarov	906	689

	Engl.,	Russ
DOCTORAL DISSERTATIONS		
On Conjugate Functions and Trigonometric Series-L, V. Zhizhiashvili	910	695
NFORMATION		
Tubilee Session of the Mathematics Division of the Academy of Sciences USSR	915	703
NDEX		
Author Index, Volumes 1-2, 1967	919	
Table of Contents, Volumes 1-2, 1967	921	



